# 金 HSAPQ <br> <br> High School Academic Pyramid Questions 

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1. Letters between this person and Arthur de Gobineau were posthumously published, and he is referred to in the subtitle of Bernard-Henri Lévy's work American Vertigo. This man argued that the lack of a strong middle class led to tyranny in The Old Regime and the (*) French Revolution. His bestknown work described the titular form of government as an irresistible tendency in modern societies. That work by this author was the result of an 1831 mission to the United States with Gustave de Beaumont. For 10 points, name this French author of Democracy in America.
ANSWER: Alexis de Tocqueville
2. This novel features a scene in which the title character's fervent conversation causes him to knock over a priceless vase. The protagonist of this work stays up all night with the corpse of Natasya after she is murdered, and he is loved by the beautiful (*) Aglaya. This novel begins when the title character meets Parfen Rogozhin on a train from Switzerland, where the title character has been treated for epilepsy. For 10 points, name this novel about Prince Mishkin, the title dolt, a work by Fyodor Dostoevsky.
ANSWER: The Idiot [accept Idiot]
3. This phenomenon can be studied by looking at spins distributed over a lattice in the Potts model, a generalization of the Ising model. The strength of this effect occurs in discontinuous jumps through the Barkhausen effect, and it occurs in small structures separated by Bloch walls known as (*) Weiss domains. This effect remains after removal of the magnetic field due to a hysteresis loop, and it occurs below the Curie temperature. For 10 points, name this type of magnetism that occurs through alignment of magnetic domains in materials like nickel and iron.
ANSWER: ferromagnetism
4. An illumination from a travelogue by Cyriacus d'Ancona is the source of a giraffe in the top left portion of this work. One of the lakes in this work contains a pink fountain, and another contains a giant globe. One part of this work uses shades of gray to show the world enclosed in a crystal-like sphere, and the middle piece of this work depicts giant (*) fruits, including strawberries. Figures in this painting are crucified on a harp and a lute, and a bird-like creature swallows and defecates people on the right side of this triptych. For 10 points, name this work by Hieronymus Bosch.

## ANSWER: The Garden of Earthly Delights

5. During this event, the Nazi John Rabe formed a "safety zone" in which about twenty thousand potential victims were sheltered. Tani Hisao was one of the people executed for complicity in this event, which was ordered by Matsui Iwane. It targeted the city that had been the (*) KMT capital for the previous decade and lasted from December to January of 1937 and 1938. For 10 points, name this World War II atrocity in which over one hundred thousand Chinese were killed by Japanese forces occupying an eastern Chinese city.
ANSWER: Rape of Nanking [or Nanking Massacre; or Rape of Nanjing; or Nanjing Massacre]
6. This man worked to defeat John Fox's East India Bill and worked against Catholic emancipation. John Wilkes was arrested for criticizing this man's speech from the throne in the periodical North Briton, and this man subsidized the King's (*) Friends faction in Parliament. His wife Charlotte Sophia cared him after he went insane, possibly from porphyria, and his ministers included George Grenville and Lord North. For 10 points, name this Hanovarian monarch, the king of Great Britain during the American Revolution.
ANSWER: George III
7. Incidental music to one play of this name formed the basis for the scherzo of Paul Hindemith's Symphonic Metamorphoses, while a 1905 orchestral suite by Ferruccio Busoni later formed the basis for Busoni's opera of the same name. At the premiere of another opera by this name, Arturo Toscanini stopped shortly after (*) Liu's suicide and said, "Here the maestro put down his pen." Shortly before that suicide, Calaf reveals his solution to the title princess' problems in the aria "Nessun Dorma." For 10 points, name this last opera by Puccini, about a Chinese princess.
ANSWER: Turandot [accept Turandot, Prinzessen von China before "Busoni"; accept Turandot, Princess of China before "Busoni"]
8. This biological process is preceded by a reaction that is triggered by the ZP3 protein of the zona pellucida and results in the exocytosis of hyaluronidase from a secretory granule, the acrosome reaction. Its completion sees the penetration of the cumulus oophorus and the formation of a second (*) polar body. This process does not occur in parthenogenesis and can be performed in vitro to produce a blastocyst for implantation. For 10 points, name this process that involves the fusion of a spermatozooal nucleus and an egg nucleus to produce a primary embryo nucleus.
ANSWER: fertilization [accept word forms]
9. In one of his stories a gunman uses mystic Jewish symbolism to trap and shoot the detective Erik Lonrot. In addition to "Death and the Compass," this man wrote a story in which a French writer attempts to write a word-for-word recreation of a Cervantes novel in "Pierre Menard, Author of the (*) Quixote." His other works include thought experiments like "Tlon, Uqbar, Orbis Tertius" and one that explores an infinite collection of books. For 10 points, name this man who included "The Aleph," "Library of Babel," and "The Garden of Forking Paths" in his collection Ficciones.
ANSWER: Jorge Luis Borges
10. One character in this play muses "To every man his little cross. [pause] Till he dies. [pause] And is forgotten." Another character describes a "personal God" characterized by "divine apathia," "divine athambia," and "divine aphasia" in a speech that begins "Given the existence as uttered forth in the public works of (*) Puncher and Wattman." That character, Lucky, is connected by a rope to Pozzo. Set on a bare stage decorated by a single tree, for 10 points, name this play about the tramps Vladimir and Estragon by Samuel Beckett.
ANSWER: Waiting for Godot [or En Attendant Godot]
11. This man was once nominated for president by a union worker hiding in a prop sewer. Smedley Butler testified to Congress that J.P. Morgan and Du Pont sought to overthrow this president in the "Business Plot." James McReynolds was one of the "Four Horsemen" on the (*) Supreme Court during his presidency. One piece of legislation passed during his presidency saw the creation of a body headquartered at Muscle Shoals. For 10 points, name this president behind the court-packing scheme who created the Tennessee Valley Authority in the New Deal.
ANSWER: Franklin Delano Roosevelt [or FDR; prompt on Roosevelt]
12. In 1969, this man became vice president of the University of Regensburg, and three years later he worked with Hans Urs von Balthasar and Henri de Lubac to create the journal Communio. He went to the International Mariological Congress in 1978 as the special envoy of (*) Pope John Paul I, one year after becoming Archbishop of Munich and Freising. In 2002, he became Dean of the College of Cardinals. For 10 points, give the papal name of Joseph Alois Ratzinger, who succeeded John Paul II in 2005. ANSWER: Pope Benedict XVI [accept Joseph Alois Ratzinger before mention]
13. This man restored several measures that had been cut from the original manuscript from his piano duet In Black and White, and at his death he left unfinished an opera based on The Fall of the House of Usher. Both The Joyous Isle and the 6/8 section of another work use the vachaspati mode of Indian music. He wrote music to (*) Five Poems of Baudelaire as well as Three Poems of Mallarmé, which does not include his Prelude to the Afternoon of a Faun. For 10 points, name this composer of La Mer and the Suite Bergamesque, which contains Clair de lune.
ANSWER: Achille-Claude Debussy
14. The 2004 Saville inquiry overturned Lord Widgery's earlier findings about this event. It was a result of the closing of Guildhall Square, which led soldiers to divert a march to the Free Corner. It occurred at a demonstration against imprisonment without charge that took place in (*) Londonderry in 1972. Thirteen of the protesters were killed by British army shooters, though the question of who shot first was contested by the Northern Ireland Civil Rights Association. For 10 points, identify this sanguine event, named for its occurrence on a certain day of the week.

## ANSWER: Bloody Sunday

15. The Pratt certificate for this is used in the Lucas-Lehmer algorithm for testing it. The Legendre symbol is used in the Solovay-Strassen test for this. The Miller-Rabin test for this results in many false witnesses from Carmichael numbers. Fermat's Little Theorem gives results for taking a modulus by a number satisfying $\left(^{*}\right)$ this property. A naïve algorithm for testing this involves testing every integer up to the square root of a number to see if it is a divisor of that number. For 10 points, name this property of numbers that are only divisible by one and themselves.
ANSWER: primality [or prime number; accept equivalent word forms]
16. This event marked the only postseason appearance of Hall of Famer Edd Roush, and the only home run hit during it was in the series-clinching Game 8 by a player who would never play another game. Cincinnati second baseman Morrie Rath was plunked by Eddie (*) Cicotte with the first pitch of Game 1 to signal that "the fix" was on. For 10 points, name this World Series after which eight members of the Chicago White Sox, including Buck Weaver and Shoeless Joe Jackson, were banned for life for having accepted bribes to throw the series.
ANSWER: 1919 World Series
17. The Grand Casemates Square serves as this territory's primary commercial center, and a decommissioned Water Catchment Center is situated near the Alboran Sea on this territory's eastern shore. Its conquest by ibn Ziyad resulted in its Arabic name, Mount Tarik. Its southernmost point, (*) Europa Point, lies northeast of its namesake strait. This territory was known as Mons Calpe to the Greeks and along with Mount Hacho, it forms the Pillars of Heracles. For 10 points, name this British territory located on the Mediterranean coast of the Iberian Peninsula.
ANSWER: Gibraltar
18. This poet warned "for none see God and live" in a poem comparing poetry to "pil[ing] like thunder to its close." The speaker of another of this author's poems feels "Zero at the Bone" after encountering "a narrow fellow in the grass." This poet of "I felt a Funeral, in my Brain" and "I'm (*) Nobody! Who are you?" wrote about a speaker who hears a "Blue / uncertain / stumbling buzz" before expiring in "I heard a fly buzz / when I died." For 10 points, name this female American poet of "Because I could not stop for Death"
ANSWER: Emily Dickinson
19. The Clausius-Clapeyron equation makes use of a type of enthalpy associated with this value. Since this value is constant for a mixture of liquids in an azeotrope, fractional distillation cannot be applied to such a system. It occurs when the vapor pressure of a liquid equals the (*) atmospheric pressure, and the "elevation" of this quantity is a colligative property, similar to freezing point depression. On his temperature scale, Anders Celsius set this value for water as 100 degrees. For 10 points, name this temperature at which a phase change from liquid to gas occurs.
ANSWER: boiling point [prompt on boiling; prompt on vaporization]
20. This figure's daughter is named Zoë, though his more famous offspring is the demonic reaper Lityerses. Roses each bear sixty blossoms in this man's garden, and in another story Silenos gets drunk and lost in this man's garden, causing a series of events ending with him bathing in the (*) Pactolus to free his daughter from statue status. He favors Pan in a music contest against Apollo, causing the latter to give this man donkey ears. An unwanted reward from Dionysus results in his misfortune. For 10 points, name this Greek king with the touch of gold.
ANSWER: King Midas
21. Supersymmetry predicts a much larger value than the standard model for this particle's electric dipole moment. These particles undergo a decay process involving the emission of a W-minus boson, lasting only around fifteen minutes in their free form. That process is beta-minus decay, and nuclear fission occurs via $\left(^{*}\right.$ ) bombardment by these particles. They consist of an up quark and two down quarks and were discovered by James Chadwick in 1932, helping to explain atomic mass. For 10 points, name these uncharged particles, found with protons in the atomic nucleus.
ANSWER: neutrons
22. One of these was created by Count Loris-Melikov and was to be proclaimed on the day that the People's Will struck. Some of the Decembrists thought that this was the name of the prince's wife, while demanding "Constantine and" this during the accession of Nicholas I. The (*) 1906 one guaranteed the rule of law, named the emperor as the protector of the Orthodox faith, and restricted the powers of the Duma. For 10 points, what are these Russian documents, of which the 1906 one was also called the "Fundamental Laws?"
ANSWER: Russian constitutions
23. One character in this place threw her infant off of a balcony in Switzerland. This place appears in John Tanner's dream in Man and Superman, in which a man who once loved Dona Anna decides to leave here. (*) Estelle, Inez, and Garcin appear in a play that claims this place is "other people," JeanPaul Sartre's No Exit. For 10 points, name this place that has nine circles according to Dante Alighieri, where he sees sinners in The Inferno.
ANSWER: hell [accept clear equivalents]

24. An educator named Mortimer with this last name wrote How to Read a Book, and a social reformer named Felix founded the Ethical Culture movement. For 10 points each:
[10] Identify this last name, which is also shared by a psychologist with first name Alfred who wrote The Neurotic Character and founded the school of individual psychology.
ANSWER: Adler
[10] Adler rejected this man's emphasis on sex as the root of neurosis. He is the author of Beyond the Pleasure Principle and the founder of psychoanalysis.

## ANSWER: Sigmund Freud

[10] According to Adler, life could be seen as an attempt to compensate for this complex, which is often accompanied with extreme aggressiveness and a lack of self-esteem.
ANSWER: inferiority complex
2. One character in this work comments that the doctor Mackenzie-King should have "gone down with the ship" by killing himself after Parker's liver operation failed. For 10 points each:
[10] Name this absurd drama in which the Fire Chief joins a dinner party and mentions the title woman, who "always wears her hair in the same style."
ANSWER: The Bald Soprano [or La Cantatrice Chauve]
[10] This Romanian-born absurdist playwright penned The Bald Soprano in addition to works like The Chairs, The Lesson, and The Killer.
ANSWER: Eugene lonesco [or Eugene lonescu]
[10] This lonesco play sees Berenger refuse to "capitulate" by becoming one of the title creatures. ANSWER: Rhinoceros
3. This document declared that Parliament must approve of the suspension of laws, the levying of taxes, and the maintenance of a standing army during peacetime. For 10 points each:
[10] Name this 1689 document that also mandated Protestant successors to the crown.
ANSWER: Bill of Rights [or An Act Declaring the Rights and Liberties of the Subject and Settling of the Succession of the Crown]
[10] The Bill of Rights repudiated the practices of this last Stuart monarch, who was overthrown by the Glorious Revolution.
ANSWER: James II
[10] Protestants in Northern Ireland annually commemorate this July 12, 1690 battle on the namesake river, at which the armies of King William III defeated the forces of James II.
ANSWER: Battle of the Boyne
4. This potential consists of a repulsive term proportional to the twelfth power of the distance between two molecules. For 10 points each:
[10] Identify this potential named after a British chemist and sometimes called the "six-twelve" potential, which describes the interaction of two uncharged molecules.
ANSWER: Lennard-Jones potential
[10] The largest part of the attractive term in the Lennard-Jones potential comes from this kind of intermolecular force, a temporary attractive force that is the weakest of the van der Waals forces. ANSWER: London dispersion force
[10] The London dispersion force exists due to the formation of one of these objects, in which a molecule has positively and negatively charged ends. Interactions between two more permanent ones form polar bonds.
ANSWER: dipole [accept dipole-dipole]
5. This mountain appears in The Great Wave Off Kanagawa, which was the first woodblock print in a series by Hokusai depicting "thirty-six views of" it. For 10 points each:
[10] Name this highest mountain in Japan.
ANSWER: Mount Fuii
[10] This French artist, a leading figure of Post-Impressionism, painted Mont Sainte-Victoire approximately thirty times. His other works include The Large Bathers and The Card Players. ANSWER: Paul Cézanne
[10] This wife of Robert Motherwell painted Mountains and Sea, which employs the technique of colorstaining and features wiry lines of charcoal.
ANSWER: Helen Frankenthaler
6. This character tells Mistress Ford that he was once handsome in the aria "Quand'ero paggio del Duca di Norfolk." For 10 points each:
[10] Name this title character of Verdi's last opera, a rosy-cheeked Shakespearean gentleman. ANSWER: Sir John Falstaff
[10] This man also wrote an opera about Falstaff, in addition to the first opera ever performed at La Scala, Europa riconosciuta. He is better remembered for his rivalry with Mozart.
ANSWER: Antonio Salieri
[10] This man spun Falstaff's story into the opera Sir John in Love but may be better known for a Sea Symphony and his seventh symphony, Sinfonia Antartica.
ANSWER: Ralph Vaughan Williams
7. Name some works by Boz for 10 points each.
[10] This Dickens novel sees the orphan Pip raised by Joe Gargery and sponsored by the former convict Abel Magwich.

## ANSWER: Great Expectations

[10] Fezziweg's party is a central scene of this work that features Ebenezer Scrooge and three ghosts. ANSWER: A Christmas Carol
[10] Little Nell dies at the end of this work that sees her grandfather's title store ruined by a misanthropic dwarf named Quilp.
ANSWER: The Old Curiosity Shop
8. It took place aboard the River Queen, and failed due to Southern demands for independence. For 10 points each:
[10] Name this unsuccessful 1865 peace conference held near Virginia that failed to end the Civil War, held in the same locale as the Monitor-Merrimack battle.
ANSWER: Hampton Roads Conference [accept reasonable equivalents for "Conference"]
[10] The Union representative at the Hampton Roads conference was this man, who later helped engineer the purchase of Alaska.
ANSWER: William Seward
[10] Among the Confederate delegates at the conference was this Georgian, the vice president of the Confederacy, who later wrote A Constitutional View of the Late War Between the States.
ANSWER: Alexander Stephens
9. This concept is a goal for humanity to "overcome humanity." For 10 points each:
[10] Name this concept of Nietzsche, usually translated as superman or overman.
ANSWER: Übermensch
[10] The Übermensch was introduced in this work, whose protagonist is a fictionalized Persian prophet. That prophet speaks a famous roundelay and utters again the words "God is dead."
ANSWER: Thus Spoke Zarathustra [or Also Sprach Zarathustra]
[10] The phrase "God is dead," however, originated in this earlier Nietzsche work whose title refers to poetry. It also contains a "prelude in rhymes" and an "appendix of songs."
ANSWER: The Gay Science [or Die fröhliche Wissenschaft]
10. He composed 10 sets of Lyric Pieces, and he quoted his own song "Spillemaend" in his string quartet. For 10 points each:
[10] Name this composer of the Holberg Suite.
ANSWER: Edvard Hagerup Grieg
[10] Edvard Grieg is a native of this country, which he expressed his nationalism for in works like the Haugtussa song cycle as well as variations on folksongs from the Jotunheim mountains.
ANSWER: Norway
[10] Greig wrote incidental music to this play, which includes Anitra's Dance and Solvejg's Song, as well as a movement opening with a flute melody to depict Morning Mood.

## ANSWER: Peer Gynt

11. Its posterior portion releases the hormones oxytocin and vasopressin. For 10 points each: [10] Name this endocrine gland located at the base of the brain.
ANSWER: pituitary gland [or hypophysis]
[10] Synthesized by the anterior portion of the pituitary gland, this hormone stimulates milk production and secretion in female mammary glands.
ANSWER: prolactin
[10] In males, this hormone stimulates the interstitial cells to synthesize testosterone. In females, a spike of this hormone stimulates ovulation.
ANSWER: luteinizing hormone [or LH]
12. Many of them descended from the defeated side in the Messenian War. For 10 points each:
[10] Name these ancient Greek slaves, who could be killed by the Krypteia and made up the underclass of a certain militaristic city-state.
ANSWER: helots
[10] The helots did agricultural and personal service work in this city, which had two kings and won the Peloponnesian War against Athens.
ANSWER: Sparta
[10] Every year, war was declared on the helots by these five annually elected chief magistrates. ANSWER: ephors
13. For 10 points each, name these senatorial losers in the 2008 elections.
[10] This Alaskan who coined the phrase "a series of tubes" to describe the Internet is the convicted felon who lost his seat to Mark Begich in a close race.
ANSWER: Ted Stevens
[10] This North Carolina senator, the wife of a 1996 Republican presidential candidate and former Red Cross president, lost to Kay Hagan.
ANSWER: Elizabeth Dole
[10] This governor of Virginia from 1998 to 2002 was crushed by former governor Mark Warner in 2008. ANSWER: Jim Gilmore
14. Rivers in this state include the Yakima and the Snake, both tributaries of this state's primary waterway, the Columbia River. For 10 points:
[10] Name this state that contains cities like Seattle and Olympia.

## ANSWER: Washington

[10] Seattle is located on this large sound connected to the Pacific Ocean by the Strait of Juan de Fuca. It is part of the same geologic feature as the Willamette River valley.
ANSWER: Puget Sound
[10] Washington's southern neighbor, Oregon, has its highest point at this mountain, a dormant stratovolcano near Trillium Lake.
ANSWER: Mount Hood [or Wy'east]
15. The protagonist of this novel is observed by the "The White Visitation." For 10 points each:
[10] Identify this novel in which Roger Mexico realizes that Tyrone Slothrop's erections predict the landing sites for V2 rockets.
ANSWER: Gravity's Rainbow
[10] This reclusive American author of V. wrote Gravity's Rainbow.
ANSWER: Thomas Pynchon
[10] At Cornell, Pynchon was taught by this author of Ada, Invitation to a Beheading, and Lolita. ANSWER: Vladimir Nabokov
16. In hemolytic anemia, an overexposure to this substance causes destruction of red blood cells. For 10 points each:
[10] Name this coal tar derivative that can be oxidized into phthalic acid with a vanadium catalyst, but is perhaps best known as the primary ingredient in mothballs.
ANSWER: naphthalene [or napthalin; or albocarbon; or antimite]
[10] The structure of naphthalene is simply two rings of this compound fused together. Its structure was described after a trippy dream by Kekulé, and its chemical formula is $\mathrm{C}_{6} \mathrm{H}_{6}$.
ANSWER: benzene [or benzol]
[10] This benzene derivative was named by Berzelius. It consists of a methyl group attached to a benzene ring and is combined with three nitro groups in TNT.
ANSWER: toluene [prompt on methylbenzene; prompt on phenylmethane]
17. One person who held this office was Pippin of Herstal, who became the real ruler of most Frankish lands following the Battle of Tertry. For 10 points each:
[10] Name this position that the Carolingians held under Merovingian kings until Pippin the Short seized official power.
ANSWER: Mayor of the Palace [or major palatii]
[10] This Mayor of the Palace, known as the "Hammer," was the grandfather of Charlemagne, and ended Muslim invasions of France with his 732 defeat of Abd ar-Rahman.
ANSWER: Charles Martel [or Carolus Martellus; prompt on partial answer]
[10] Charles Martel's victory occurred at this site, also the hometown of the apostle Martin and historian Gregory.
ANSWER: Tours [or Poitiers]
18. Name the following dystopian novels for 10 points each.
[10] Winston Smith's fear of rats is exposed in Room 101, and he turns on Julia in this George Orwell novel.
ANSWER: 1984
[10] D-503 is designing the spaceship Integral for the OneState in this Yevgeny Zamyatin novel, until he falls in love with I-330 and is forced to undergo the Great Operation.
ANSWER: We [accept $\boldsymbol{M y}$ ]
[10] Alex leads a band of "ultra-violent" gang members in this novel that features the slang language Nadsat and Beethoven's Ninth, written by Anthony Burgess.
ANSWER: A Clockwork Orange
19. It is composed of four successive steps and involves an engine that operates between a heat source and a heat sink. For 10 points each:
[10] Name this ideal thermodynamic cycle that sets the ratio of the work output over heat input equal to the difference between the source and sink temperatures over the source temperature.
ANSWER: Carnot cycle
[10] If a real heat engine were more efficient than a Carnot engine, it would violate this law, which states that the total entropy of the universe never decreases.
ANSWER: Second Law of Thermodynamics [prompt on Law of Thermodynamics]
[10] The Carnot cycle is composed of two isothermal processes, each of which are followed by either a reversible expansion or a compression of this type in which no heat is transferred.
ANSWER: adiabatic
20. This creature married the nymph Chariclo on Mount Pelion and was born of Cronus and Philyra. For 10 points each:
[10] Name this creature who taught a bunch of people including Asclepius, Peleus, Jason, Aristaeus, and Heracles, who caused his death by hitting him with a poisioned arrow.

## ANSWER: Chiron [or Cheiron]

[10] Chiron is the noblest individual of this race, who were all born from the union of Ixion and a cloud. Enemies of the Lapiths, the members of this race were half-man, half-horse.
ANSWER: centaurs [or Kéntauroi]
[10] One particularly troublesome centaur was this one, who attempted to rape Heracles' wife Deianeira. Deianeira spread his blood on a shirt, causing Heracles's slow and painful death.
ANSWER: Nessus
21. He wrote about a seventeenth-century murder in The Ring and the Book. For 10 points each:
[10] Name this poet of dramatic monologues like "Andrea del Sarto" and "Fra Lippo Lippi."

## ANSWER: Robert Browning

[10] The title of this Browning monologue refers to a woman "painted after the wall" by Fra Pandolf. The narrator had her killed because she had a heart "too soon made glad."
ANSWER: "My Last Duchess"
[10] This Browning poem speaks of a "hoary cripple" and ends with its narrator blowing a slug-horn after a journey to the title structure.

## ANSWER: "Childe Roland to the Dark Tower Came"

22. Romans referred to years by the names of the holders of this office. For 10 points each:
[10] Name this high office in the Roman Republic, which was occupied by one patrician and one plebeian annually.
ANSWER: consul
[10] This low-ranking elected office had responsibility for the public treasury and tax collection.
ANSWER: quaestor
[10] The path from quaestor to consul, which might also include a term as aedile or praetor, was known to Romans as this customary sequence of elected offices.

## ANSWER: cursus honorum

23. The most common inherited mental deficiency occurs when this is "fragile" and has a tendency to break or tear. For 10 points each:
[10] Name this sex chromosome, of which males typically have one and females typically have two.
ANSWER: $\underline{X}$ chromosome
[10] This condition occurs when people have two $X$ and one $Y$ chromosome, and often affects sexual development. Symptoms include enlarged breasts, reduced facial hair, and small testicles.
ANSWER: Klinefelter syndrome
[10] Inactive X chromosomes condense into these structures named for the Canadian who co-discovered them with Ewart Bertram.
ANSWER: Barr body
